

# PATENT SPECIFICATION

(11) 1 224 523

DRAWINGS ATTACHED



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- (21) Application No. 58618/68 (22) Filed 10 Dec. 1968  
(23) Complete Specification filed 6 Nov. 1969  
(45) Complete Specification published 10 March 1971  
(51) International Classification B 60 r 1/02  
(52) Index at acceptance  
B7J 69  
E2B 4A3 4A4 4A7U  
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## (54) IMPROVEMENTS RELATING TO REAR-VIEW MIRRORS FOR VEHICLES

(71) We, WINGARD LIMITED, a British Company of Kingsham Road, Chichester, Sussex, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to improvements in rear-view mirrors for vehicles, the mirrors being of the kind in which a mirror glass is mounted in a case adapted to be carried by a supporting arm or the like on which it is angularly adjustable, the case comprising a back carrying the means for mounting it on the supporting arm or the like and having a forwardly extending peripheral flange in which the mirror glass is received.

According to our invention, in a mirror of the kind set forth the periphery of the mirror glass is received in a groove in a sealing member of elastomeric material and the said member makes a seal between the peripheral flange of the case and a rib which extends forwardly from the back of the case and is separate from and spaced inwardly from the peripheral flange.

The sealing member may be moulded in its finished form from suitable elastomeric material or it may be produced by heat welding or friction welding together the ends of an extruded length of material of the required cross-section.

In one convenient arrangement the outer surface of the sealing member is shaped to make a sealing engagement with the flange on the case, and on the inner side of the sealing member there is a step adapted to be engaged by a tongue on each of a number of spring clips engaged with the forwardly extending rib on the back of the case.

In a modification the spring clips may be dispensed with and the rib extending forwardly from the back of the case may be formed with spaced laterally projecting lips behind which the step on the sealing member engages when it is pressed into the case.

If the mirror glass is broken the elastomeric

sealing member can be readily removed and another one complete with glass inserted into the case.

Several embodiments of the invention are described by way of example and are illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation, partly in section of a rear-view mirror according to the invention;

Figure 2 is a perspective view of a clip used to retain a sealing element in the mirror case; and

Figure 3—8 are fragmentary sections illustrating modifications of the mirror shown in Figure 1.

As shown in Figure 1 the mirror case is a plastics moulding having a back 10 and a forwardly extending peripheral flange 11. On the back 10 there is formed a housing 12 for an angularly adjustable fitting 13 which is adapted to be connected to a supporting arm on a vehicle. Extending forwardly from the back 10 of the case is a rib 14 set in a short distance from the flange 11.

The periphery of a mirror glass 15 is fitted in a groove 16 in a sealing member 17. The outer surface of the sealing member 17 is shaped to make a sealing engagement with the flange 11 on the case, and on the inner side of the sealing member there is a step 18 adapted to be engaged by a tongue 19 on each of a number of spring clips 21 engaged with the forwardly projecting rib 14.

The sealing member 17 may be moulded in its finished form from suitable elastomeric material or it may be produced by heat welding or friction welding together the ends of an extruded length of material of the required cross-section.

Each clip 21 as shown in Figure 2 is a folded member formed from the spring steel which is adapted to fit over the rib 14, the limbs of the clip having central inwardly projecting tongues 22 which bite into the surface of the rib 14 as well as the outwardly projecting tongues 19 which are formed from the side edges of the limbs.

Another type of clip 23 is shown in Figure 1 in which the outwardly projecting tongues are central and the inwardly projecting tongues are formed from the side edges.

5 In assembling the mirror the clips 21 or 23 are fitted to the rib 14 first and the sealing member 17 with the glass 15 in position is then pressed into the case until the step 18 engages under the adjacent tongues 19 on the clips.

10 In a modification shown in Figure 3, the sealing member 17 has a slot 24 which fits over the rib 14 and steps 18 are provided on the sides of the slot 24 for engagement by the outwardly projecting tongues in both limbs of the clips.

15 In yet another modification shown in Figure 4 there are two parallel ribs 14 on the back 10 and the sealing member is formed with a flange 25 which enters between the ribs 14 and is engaged by a tongue 19 on a clip fitting over the outer rib.

25 The outer surface of the sealing member 17 may simply be in sliding and sealing engagement with a smooth part of the inner surface of the flange 11 of the case as shown in Figures 1, 3 and 4 or the outer edge of the sealing member 17 may be formed with a projecting lip 26 to fit against the edge of the flange 11 as shown in Figures 5. Alternatively, the flange 11 may have a step 27 which co-operates with the projecting lip 26 of the sealing element 17 as shown in Figure 6.

35 In the modification of the mirror shown in Figure 7 the spring clips are dispensed with and the rib 14 is not formed with spaced laterally projecting lips 28 behind which the step 18 on the sealing member 17 engages when it is pressed into the case. One of the lips 28 is shown in more detail in Figure 8.

#### WHAT WE CLAIM IS:—

45 1. A rear-view mirror for a vehicle of the kind set forth in which the periphery of the mirror glass is received in a groove in a sealing member of elastomeric material and the said member makes a seal between the peripheral flange of the case and a rib which extends forwardly from the back of the case and is separate from and spaced inwardly from the peripheral flange.

50 2. A rear-view mirror as claimed in Claim 1, in which the sealing member has a step adapted to be engaged by clips engaged with the rib on the back of the case.

55 3. A rear-view mirror as claimed in Claim 2, in which the sealing member fits over the rib on the back of the case.

4. A rear-view mirror as claimed in Claim 3, in which two parallel ribs, set in from the flange, extend forwardly from the back of the case and the sealing member fits between them.

65 5. A rear-view mirror as claimed in Claim 1, in which the sealing member has a step adapted to be engaged by spaced laterally projecting lips formed from the rib on the back of the case.

70 6. A rear-view mirror as claimed in any of the preceding claims in which the sealing member is formed with a projecting lip to fit against the free edge of the peripheral flange.

75 7. A rear-view mirror as claimed in Claim 6, in which the peripheral flange has a step which co-operates with the projecting lip on the sealing member.

80 8. A rear-view mirror as claimed in any of the preceding claims in which the elastomeric sealing member is moulded in its finished form.

85 9. A rear-view mirror as claimed in any of the claims 1 to 8 in which the sealing member is a length of extruded elastomeric material of the required cross-section, the ends of which are heat welded or friction welded together.

90 10. A rear view mirror for a vehicle of the kind set forth substantially as described with reference to Figure 1 of the accompanying drawings.

95 11. A rear-view mirror for a vehicle of the kind set forth substantially as described with reference to Figure 3 of the accompanying drawings.

100 12. A rear-view mirror for a vehicle of the kind set forth substantially as described with reference to Figure 4 of the accompanying drawings.

13. A rear-view mirror for a vehicle of the kind set forth substantially as described with reference to Figure 5 of the accompanying drawings.

105 14. A rear-view mirror for a vehicle of the kind set forth substantially as described with reference to Figure 6 of the accompanying drawings.

110 15. A rear-view mirror for a vehicle of the kind set forth substantially as described with reference to Figures 7 and 8 of the accompanying drawings.

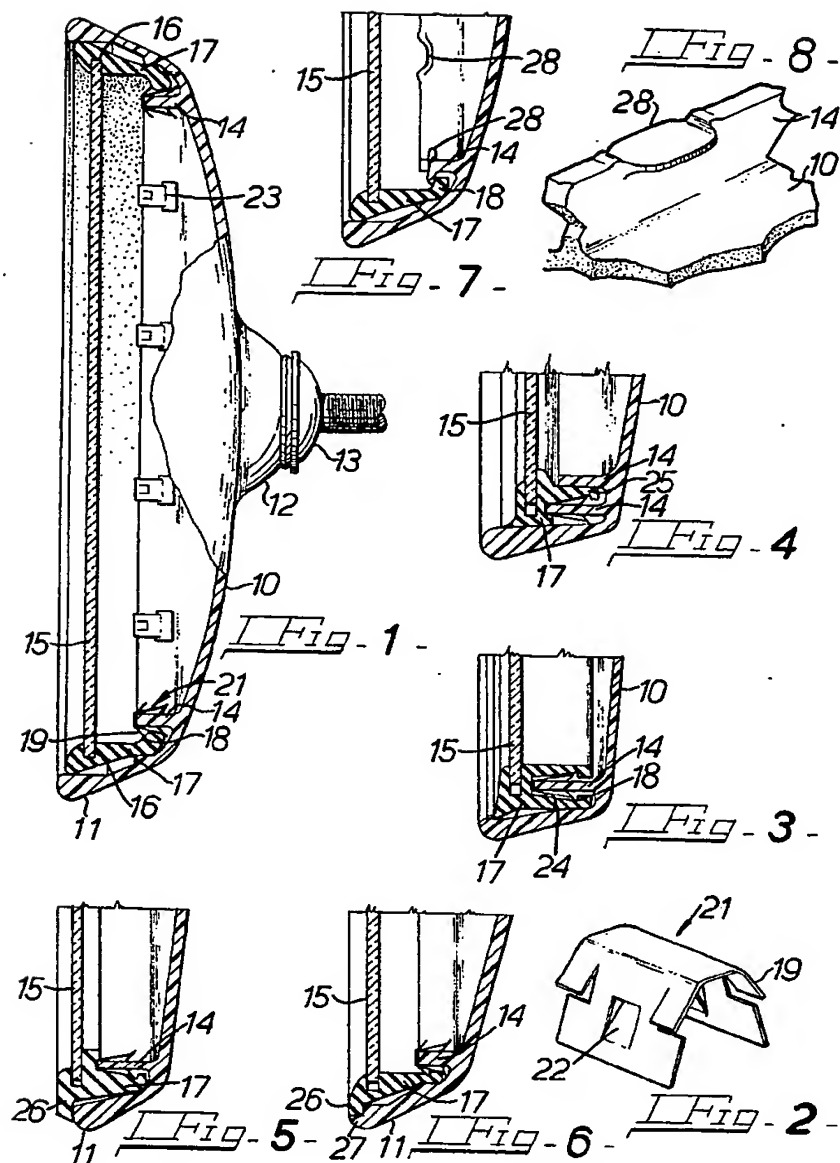
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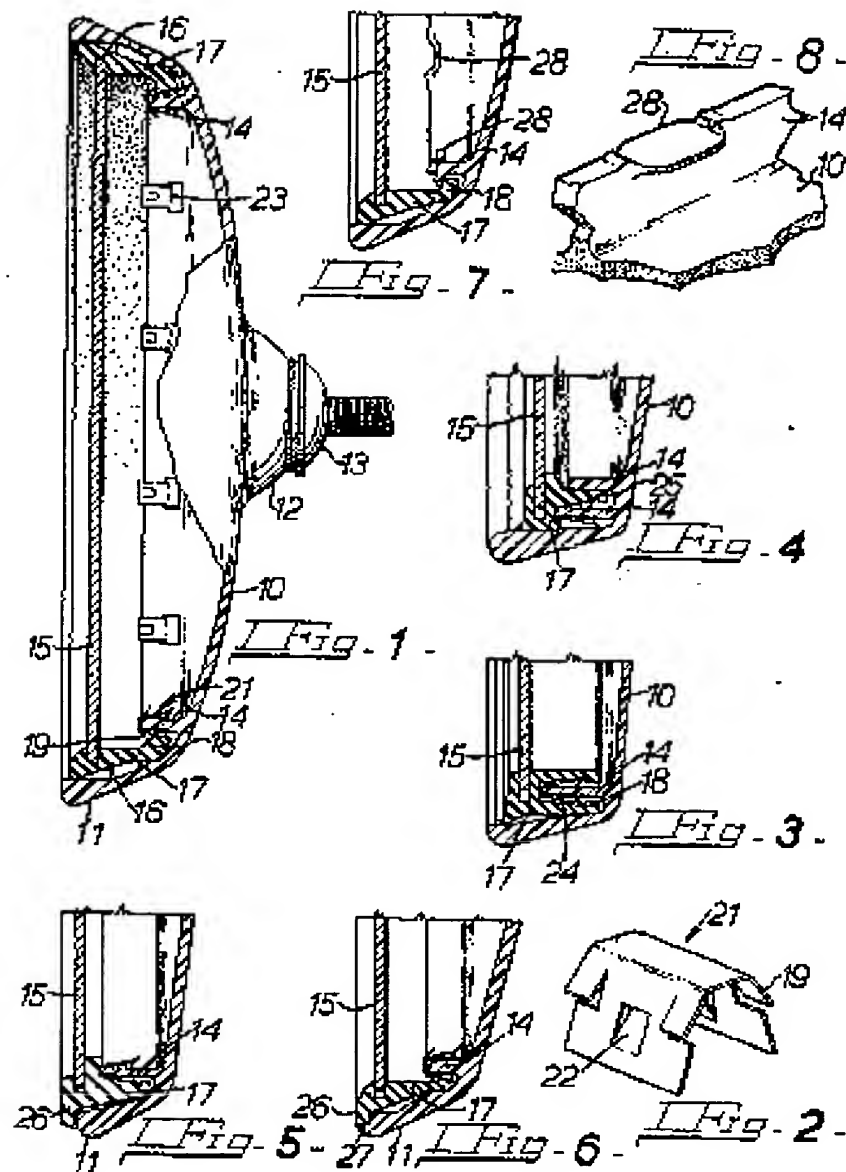
## COMPLETE SPECIFICATION

1 SHEET

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